

# JUNCKERS CSR REPORT

The way we conduct our business  
values and principles

**2022 activities**



[JUNCKERS.COM](https://www.junckers.com)





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# Management Directive



2022 turned out to be a satisfactory year for Junckers despite challenging business conditions. While the repercussions of the COVID-19 pandemic were still affecting industry Europe was tragically affected by another crisis with the unfortunate Russian invasion of Ukraine. With obvious severe personal and political consequences, the conflict also negatively impacted the economic environment.

Accelerating inflation and increasing interest rates led to an economic slowdown towards the end of the year. At Junckers, we did, however, manage to maneuver well through the challenges and secured satisfactory financial as well as strategic progress. As we enter a new year with significant uncertainty our focus is to secure continued operational improvements within the Group, while maintaining direction and momentum towards our long-term goals.

An essential element which runs through the core of our business both operationally and strategically is securing continued development and transparency regarding our sustainability efforts and mindset. Following the UNs adoption of the SDGs in 2015 we have systematically focused on supporting four SDGs and in early 2020 we were one of the first companies in the flooring industry to introduce product specific EPDs. With this year's publication of our first CO<sub>2</sub>e accounts, we are taking yet another step forward in our work to offer complete transparency as well as guidance for further improvements.

Our first climate accounts revealed highly satisfactory overall figures, especially when considering the beneficial effects of our biomass from residual wood. It reveals the benefit of years of systematic work with minimizing our environmental impact and when including "out-of-scope" emissions from treatment of waste in operations from our total emissions we can demonstrate a reduction in the amount of CO<sub>2</sub>e in the atmosphere. The findings have validated the beneficial effects of our production approach and the benefits of biomass, and it will help us formulate and set even more ambitious goals for the future.



Despite this solid position, we continue to seek ways of working to improve our business model, minimise our environmental impact, and make it easier for our customers to make an informed choice which is less harmful to the environment. Our partnership with a:gain offering upcycled flooring solutions made from offcuts and the introduction of our carbon calculator represents another push in the right direction in support of sustainable building.

The annual CSR report (the COP) is prepared in accordance with the requirements of section 99a of the Danish Financial Statement Act. It will be published on [www.junckers.com](http://www.junckers.com) and used when communicating with external stakeholders, among these, customers.



Junckers A/S, Køge, Denmark May 2023

Lars Gjødsbøl  
Chief Executive Officer

A handwritten signature in black ink, appearing to read 'Lars Gjødsbøl'.



# Anti-corruption

Outside Denmark, Junckers is represented by own subsidiaries, retailers and distributors in Europe and the USA. In addition, the company collaborates with commercial partners in Eastern Europe, the Middle East, Asia, and Oceania among others. Overall, this means the company's partners operate in different cultures with major differences and tolerance to corruption and transactions which carry characteristics of corruption.

Junckers has once and for all made it clear that the company is against corruption, extortion, and bribery, and that it is unacceptable for an employee to participate in this type of behaviour, be it as a giver or receiver.

Junckers' stance on corruption is published on the company's website with the following wording:

*We are against corruption, extortion and bribery and it is not permitted for this to be offered, promised, given, accepted, tolerated, required or deliberately benefitted from*



In 2022, there has been no identified cases of corruption or bribery. Going forward, we will continue to fight corruption and bribery and monitor reports from our established whistleblower scheme. In 2022 we have continued to monitor our whistleblower scheme and sharpened our focus to combat corruption.



# Human Rights

The target for Junckers A/S is to ensure that our values are complied with by every operating unit. The objective of our work is to secure the observance of human rights and the safeguarding of basic labour rights. The company supports the protection of fundamental human rights in all its operations, and seeks to promote respect for these principles by others where it has an influence, particularly contractors, suppliers, and all other entities and individuals with whom it has a business relationship.

In 2022, no cases of breaches to human rights have been identified. Going forward, we will continue to work on ensuring that all human rights are respected and we will continue to communicate our guidelines to all employees and business relations. In 2022 we have informed our new business partners and new employees about our human rights principles.

## Gender distribution

### Board of Directors

Of the four non-employee representatives on the Board of Directors, three are male and one is female.

The company's target is for the proportion of the under-represented gender among non-employee representatives to constitute one board member by 2025, which has been achieved.

### Managerial positions

Junckers strongly believes in equal employment opportunities and diversity in the Management of the company. The current management structure consists of three males and one female.

During 2022 Junckers has worked actively to ensure a candidate from each gender is among the last two candidates in the recruitment process.

## History

Flemming Juncker was a young Danish graduate in forestry with foresight. He knew the economic viability of Danish forests was in bad condition. It was necessary to find new fields of application for the wood that had up until then been used as firewood or simply left to rot in the forests.

Flemming Juncker started the sawmill in 1930 to produce an order of 40,000 railway sleepers from beechwood for DSB (Danish State Railways). He rented a 7,000 m<sup>2</sup> area from Køge Shipyard outside Copenhagen, and bought a frame saw in Sweden.

The production of the railway sleepers was thought to be a one-off assignment and the remaining wood was sold to the Køge Timber Factory. When the collaboration ended, Juncker had to find other ways to dispose of the remaining wood.

This was the beginning of the 2-strip beech floorboard - two rows of staves assembled into one floorboard on a Lindermann machine. The idea behind the beech flooring was to drive the Swedish pinewood floors out of the Danish housing market. It worked, and the foundations for Junckers' solid hardwood flooring were in place.



# About Junckers

Junckers A/S is one of Europe's leading manufacturers of solid wood flooring in the sports, residential and commercial markets.

At the same time, we are the only flooring company in the marketplace that can complement solid wood flooring with a carefully balanced range of our own produced woodcare products for maintenance and renovation of wooden floors. In this way, Junckers is always able to provide a complete solution, irrespective of the nature of the project.

With Junckers as a professional partner, you are always ensured expert technical service before, during and after a project. In our experience this ensures the highest possible quality.

All our wooden floors and woodcare products are produced in Denmark, developed based on the solid traditions of Danish craftsmanship.

We are focused on individual customer requirements. The advice and guidance provided by our professional team is closely tied to the daily production offering a wide-ranging wealth of expertise.

Junckers is represented in more than 40 countries through seven subsidiaries as well as through a network of distributors and agents. Exports account for approximately two-thirds of total sales and Junckers' products are sold in more than 45 countries worldwide.

## Key figures 2022

Number of employees in Køge	248
Number of employees in Nørre Alslev	19
Number of employees outside Denmark	32
Annual group turnover	DKK M 416
International sales account for approx.	65 %

# Climate Impact reporting

In 2022, Junckers has taken its work with sustainability one step further and released the company's first climate accounts. By outlining Junckers' CO2 footprint we are able to set concrete goals for how we will work actively to reduce the company's footprint in the future.

*The result of the climate accounts also emphasises that our business model and production methods already take nature into account*



Junckers has a long history of zero wood waste and contributing to biomass energy production. Harnessing by-products from our wood flooring production for energy entails the reduction of emissions outside our value chain and helps equalise the footprint identified in Scope 1, 2 and 3.

## Transparent reporting

At Junckers, our aim is to work seriously and ambitiously with the green agenda, and this led us to not only start by mapping Scope 1 and 2 in our climate accounts, but also include Scope 3 - where our largest footprint lies - as well as Out-Of-Scope - highlighting avoided emissions. By including all elements, we believe that we provide the most accurate and complete picture of the company's environmental impact.

By reporting in a transparent and comprehensive manner, we can communicate our impact in a credible way and work purposefully with reductions, both internally and in relation to our value chain and collaborative relationships.

The GHG Protocol supplies the world's most widely used greenhouse gas accounting standards. It is for this reason we have chosen to use this particular methodology for carbon measurement at Junckers.



### SCOPE 1 | DIRECT EMISSIONS

All direct emissions from sources owned or controlled by the company.

### SCOPE 2 | INDIRECT EMISSIONS

Indirect emissions from electricity or district heating purchased and used by the company.

### SCOPE 3 | OTHER INDIRECT EMISSIONS

Indirect emissions from the company's activities from sources that the company does not own.

### OUT OF SCOPE | AVOIDED EMISSIONS

Avoided emissions, also referred to as 'Scope 4' emissions, can be defined as reductions that occur outside of a product's life cycle or value chain.

CO<sub>2</sub>e emissions are not the only greenhouse gas. There are other greenhouse gases such as methane and nitrous oxide. In the GHG protocol, reporting covers six greenhouse gases:

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbon (HFC3)
- Perfluorocarbon (PFCs)
- Sulphur hexafluoride (SF<sub>6</sub>)

Instead of reporting on all six individually, the greenhouse gases are converted into CO<sub>2</sub> using the concept of CO<sub>2</sub> equivalents, also called CO<sub>2</sub>e.



# Climate Accounts 2021

Total emission

Junckers' climate accounts contain Scope 1, 2 and 3 as well as out-of-scope avoided emissions. The distribution of emissions in the different scopes and main contributions is described in the following section.

*The total emissions from Junckers' Scope 1, Scope 2, and Scope 3 activities in 2021 are 24,820 tonnes of CO<sub>2</sub>e*



Scope 1 + 2

Scope 1 has a contribution of 471 tonnes of CO<sub>2</sub>e, which primarily comes from diesel consumption for trucks. Scope 2 has a contribution of 4,433 tonnes of CO<sub>2</sub>e, mainly derived from electricity consumption calculated with market-based emission factor. The main contribution in Scopes 1 and 2 is from electricity consumption. Scope 3 contributed 19,916 tonnes of CO<sub>2</sub>e, representing 80% of Junckers' total emissions.

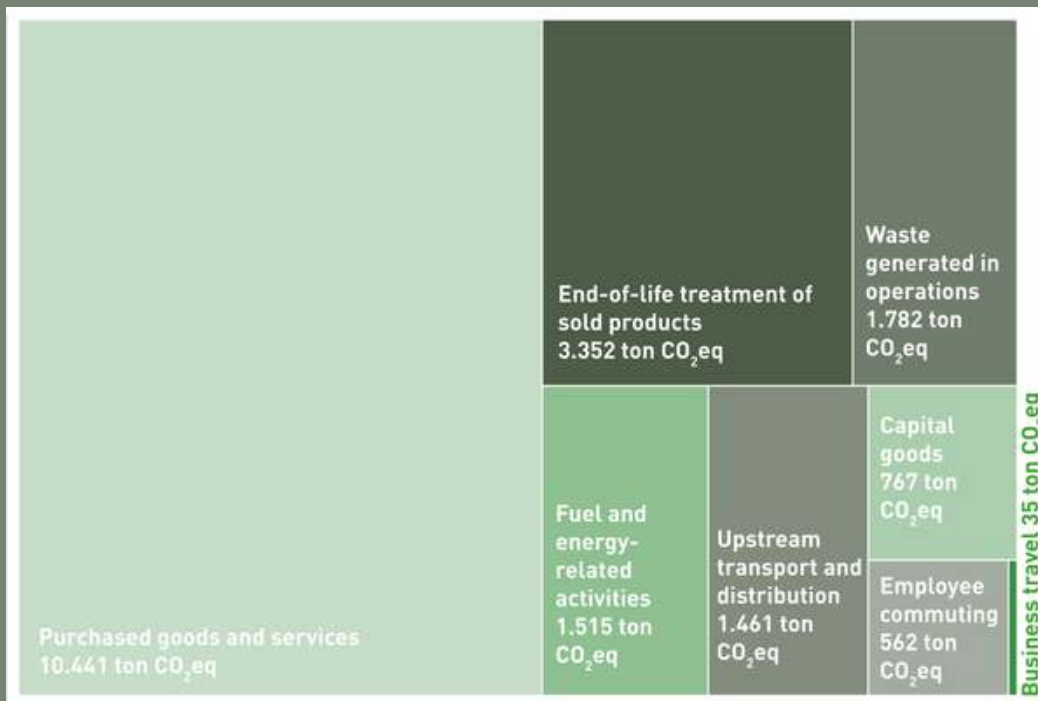


Scope 3 includes both upstream and downstream activities. Upstream includes indirect emissions in the value chain from the production phase until the products are in stock. Downstream includes indirect emissions in the value chain from our warehouse to stores and customers. Junckers does not have emissions in all categories in Scope 3, which is why some are omitted.

*The two largest contributions from Scope 3 came from the categories Purchased Goods and Services and End-of-Life treatment*



Purchased Goods and Services account for 52% of Scope 3 emissions. The main contribution here comes from the procurement of chemicals, metal products, and raw wood.



End-of-Life treatment contains the second highest contribution of greenhouse gases in the Scope 3 categories. For waste treatment of wooden floors, primary data on emissions have been used, as these are available for each type of wooden floor in Junckers' flooring EPDs, published in 2022. The remaining product categories are calculated based on average values in Exiobase.

These include: Downstream transportation: Junckers arranges all transport to and from the company - Processing of sold products: Junckers only sells finished products - Use of sold products: Junckers products do not have direct or indirect energy consumption - Downstream leased assets: Junckers does not rent out any assets - Franchises: Junckers has no franchises - Investments: Junckers does not have subsidiaries



# Climate Accounts 2021

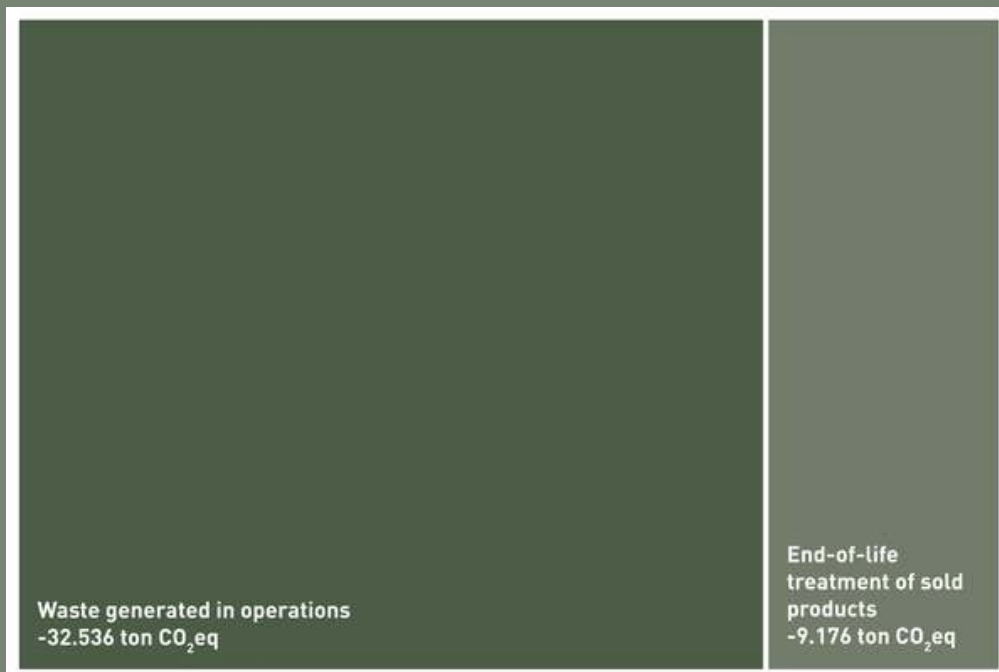
## Substitution - Out-of-scope

Substitution occurs when activities (typically from waste treatment) minimise the need to produce new energy, raw material, product, service or other. For example, incineration of waste can provide heat and electricity which subsequently does not need to be produced from a regular energy source which would otherwise be used to meet the electricity and heat demand in a market.

*The incineration of waste and utilising biomass are decisive factors in our business model and in the way Junckers runs a green business*



Emissions saved by avoided production are calculated "out-of-scope", while emissions from waste treatment are calculated in Scope 3. The avoided emissions for Junckers are calculated as displayed below:



The result is a total saving of 41,712 tonnes of CO<sub>2</sub>e of which 70% comes from the treatment of waste from operations; while 30% comes from end-of-life treatment of sold products.

Given the extraordinary long lifetime of a Junckers flooring solution (50+ years) the end-of-life effects are, although highly likely, so far out in the future, why we have chosen to attach less importance to these effects. However,

*What is not uncertain is the positive effects of the processing of biomass. When deducting the out-of-scope emissions from treatment of waste generated in operations from Junckers' total emissions, the 2021 activities actually reduce the amount of carbon in the atmosphere by -7,716 tonnes of CO<sub>2</sub>e, meaning more carbon was removed than emitted*



It is important to note that biomass generated from Junckers' operations is progressed in the same year as the displacement takes place and the climate accounts are prepared. As the activities run simultaneously, we find it reasonable to conclude that our flooring solution is one of the greenest choices available in the marketplace - not based on offsetting, but a result of an almost fossil-free production and biobased energy factory set-up. At Junckers, we believe in effectively reducing climate change by reducing our own footprint - not by offsets as they do not work towards the core issue of reducing Co<sub>2</sub> emissions.

Carbon offsets are not a cure for climate change. A more effective and environmentally-friendly approach to combating climate change is to reduce emission associated to the activities related directly to Junckers. With this approach we offer our customers a responsibly produced flooring solution with a low demand on natural resources and a minimal climate footprint. What other flooring design grows on trees and is produced without harming the atmosphere?



# Support for the Science Based Targets initiative

## Targets

In 2023, Junckers will continue to work on its climate accounts and define concrete objectives in relation to the company's climate ambitions.

We continue to work on refining and optimising the mapping of underlying data models with the aim to gain even greater insight into the emissions that occur from activities related to the operation of Junckers.

To support our ambitions for CO2 reductions, we have joined the Science Based Targets initiative. The initiative controls the reduction targets we set ourselves as a company and follows up on whether we reach our targets on time.

The initiative commits Junckers to work purposefully with the ambitions of the Paris Agreement. During 2023 and 2024, we will develop and set specific goals for our commitment to SBTi and describe which actions will ensure we achieve our goals.









# Junckers UN Global Compact

PEOPLE AND THE PLANET ARE AT THE CORE OF OUR BUSINESS. In 2011, Junckers joined the UN Global Compact, a sustainable business initiative.

When the Sustainable Development Goals (SDGs) were introduced, we used us to use the goals as a framework to inspire and guide our business.

Based on our industry and business, we have identified the following goals: Good health and wellbeing; Industry, innovation and infrastructure; Quality education; Decent work and economic growth; and Production, industry and innovation.

## UN GLOBAL COMPACT

In 2011, Junckers joined the UN Global Compact and committed to its ten principles to operate in ways that meet fundamental responsibilities in the areas of human rights, labour, environment, and anti-corruption. Ever since, we have detailed our progress in our annual company CSR report.



# ers & l Compact

AT THE FOREFRONT OF OUR MINDS  
compact to demonstrate our commitment to  
able future.

ere adopted in 2015, it was a natural progression for  
nd guide us in the development of our business.

model, we focus on four of the SDGs.

assess our business operations in relation to  
and infrastructure; Responsible consumption and  
nd Life on land



## THE SUSTAINABLE DEVELOPMENT GOALS

The blueprint to achieve a better and more sustainable future for all.

The goals address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, peace, and justice.



# Good health & wellbeing

Working to support, maintain and improve the health and wellbeing of our employees is an integral part of our strategy. From implementing measures to ensuring a healthy work environment, reducing the number of accidents through safety procedures to setting annual health goals for our employees, we strive to make sure everybody feels safe and well.



## 2022 HIGHLIGHTS

### People

Our employees are the cornerstone of our success. We must attract and retain the best human capital necessary to continue to be and develop as Europe's leading manufacturer of solid wood flooring solutions in the sports, residential and commercial market segments.

On the following pages, we highlight our people ambitions and activities in 2022 within human resources and the work environment at Junckers.

HEALTH  
WELL-BEING



“ We strive  
to make sure  
everybody feels safe  
and well

# Our greatest strength is ou

We have the know-how, diversity, experience, forward thinking and creativity. We have high expectations to ourselves and a strong commitment to craftsmanship. Our culture is rooted in our core beliefs; responsibility, quality, experience, and sustainability, which we strive towards on a daily basis.

Junckers has a clearly defined employment policy: Junckers aims to hire the applicant best qualified for any job within the given financial frame. The company's core value is to aim for diversity at work in order to give all applicants the guarantee of equal opportunity; regardless of sex, age, religion, or ethnic background.

A newly appointed employee must possess the qualifications that reflect the demands required for the job, as well as Junckers' current standards of conduct and values. In addition to an applicant possessing professional and humanitarian requirements, basic language skills that are necessary for daily communication and compliance with the environmental management concept may be required.

The company will encourage a potential applicant to acquire these attributes or actively contribute to a qualified applicant obtaining these qualifications. In addition to normal employment, Junckers also engages employees for short-term positions, and has a positive attitude to engaging employees in training and internships.

## Junckers employment policy

### DIVERSITY

We aim for guaranteed equal opportunities regardless of age, sex or ethnic background

### QUALIFICATIONS

We hire applicants who possess the required qualifications and reflect our company values

### ENGAGEMENT

We engage employees for short-term jobs and have a positive attitude towards job training and internships



# r people

## 2023 targets

### SMOKE-FREE WORKING HOURS

In 2023 Junckers will implement smoke-free working hours. Based on current legislation, the company's Working Environment and Health Policy, a Smoking Policy has been drawn up which applies to employees and guests at all Junckers' facilities.

The smoking policy is an overall framework which reflects the company's attitude towards having smoke-free working hours and signals that Junckers seeks to create a healthy environment for its employees. Also, by removing the smoking culture young people are prevented from taking up smoking.





# Job satisfaction

At Junckers, we continue to work with a common framework to implement job satisfaction. In our quest to do so we use the following guides in our daily work.

## Acknowledgement

Acknowledge the experience and knowledge of your colleagues.

- » Praise your colleagues when they deserve it.
- » Appreciate extraordinary effort - not to be taken for granted!
- » Simply say thank you.
- » Believe your colleagues are doing their best.

## Communication

Communication should always be open and direct.

- » Avoid irony and insinuations, especially if you are a leader.
- » Avoid misunderstandings by adapting communication to suit the recipient.
- » Conduct regular departmental meetings – this also provides a sense of security.

## Security

Respect agreements and confidentiality.

- » Be visible, accessible and present as a leader.
- » The work should, as far as possible, be planned so it is predictable and transparent.
- » Provide adequate instruction for new tasks.
- » A good atmosphere provides a sense of security.
- » Take responsibility and make sure that everyone is happy.

## Good Tone

Greet your colleagues.

- » Politeness (always gratifying, never damaging).
- » Adapt your language and tone to avoid upsetting others.
- » It is your rightful duty to put your foot down if you are offended by someone's tone or behaviour.
- » Listen and try to understand the other person's point of view.
- » Respect each other's personalities and work.
- » Friendly nicknames are OK but "nasty" nicknames are bullying.
- » Think before you speak!

## JOB SATISFACTION POLICY

### 2023 targets

All employees at Junckers A/S must contribute to creating and maintaining a workplace where the tone and behaviour towards fellow colleagues is both positive and respectful. Bullying, harassment and any other behaviour that can cause harm to others will not be tolerated.



## JOB SATISFACTION AGENTS

Our goal is not only to secure a successful company, but also to be a good place to work. The main risk Junckers faces is assessed to be a lack of focus on safety at work, which can cause occupational injuries, increased sick leave and the resignation of competent and qualified employees. We place a strong focus on health and safety to continue to retain our skilled and valuable employees. Consequently, several colleagues have trained as Job Satisfaction Agents.

### WHAT IS A JOB SATISFACTION AGENT?

WE ARE A SMALL GROUP OF EMPLOYEES WHO ARE TRAINED TO ACT AS JO SATISFACTION AGENTS AT JUNCKERS.

We are a kind of collegial "safety valve", and we consider ourselves to be the first point of contact. We can offer a warm shoulder and sympathetic ear if you need it.

As job satisfaction agents, we have a positive approach to all our colleagues. We want to create a sense of community for all employees at Junckers.

It is important for Junckers, and us as job satisfaction agents, that our colleagues thrive both within and outside the workplace.

We do not consider any issues to be too big or too small. We are trained to listen, comfort, advise, and guide if that is what you need.

### FAQ - WHAT CAN BE ASKED FOR?

EVERYTHING. BASICALLY. HERE ARE SOME EXAMPLES.

1) Will my inquiry go further?

*"No, we have a duty of confidentiality. If you need to lighten your heart privately, you can always contact one of the wellbeing agents. However, be aware that we cannot solve your problems, but we can listen, accommodate and advise".*

2) I feel like I am being bullied or overlooked

*"Contact a job satisfaction agent. It is our primary focus to cherish wellbeing and ensure help maintain a good working environment. We work with working environment representatives when or if an employee so wishes".*

3) I have lost someone I loved and think it has become too hard!

*"A job satisfaction agent can listen and offer a shoulder to unload on".*



# Physical working environment

In 2022 Junckers completed a Health and Safety risk assessment on physical issues (APV in Danish).

The risk assessment process surveys the company's physical working environment, identifying the areas where improvements are needed, and provides a plan for how to improve the working environment in those areas.

## HEALTH AND SAFETY RISK ASSESSMENT

2023 targets

The physical risk assessment will be reviewed every three years – the next one is planned for 2025.

## ACCIDENT PREVENTION

2023 targets

Junckers will strive to have a minimum of accidents by continuing our efforts within safety training, guidelines, and communication.



# Accident Prevention & Safety Training

A safe workplace is essential to Junckers. We do our utmost to ensure that our work environment is safe so that accidents and injuries can be avoided. Training and general safety actions have once again helped us avoid costly accidents. The trend has been downward for many years thanks to our efforts.

Unfortunately, in 2022, seven incidents were recorded, which is not acceptable. In 2023 there will be increased focus on avoiding such incidents. Fortunately, the total number of days absent due to occupational accidents was very low in 2022.

2010: 15  
 2011: 9  
 2012: 11  
 2013: 10  
 2014: 12  
 2015: 17  
 2016: 16  
 2017: 10  
 2018: 13  
 2019: 14  
 2020: 5  
 2021: 4  
 2022: 7

*Number of accidents per year since 2010.*

# Industry, innovation & infrastructure

## By joining us you join nature

The sustainability agenda pushes, inspires, and questions us, whether we are rethinking production methods, making use of by-products, supporting the timber industry, or adding to our environmental credentials. On the following pages you can read more about our initiatives to promote sustainability within our industry and how we collaborate on upcycling projects and support good causes that benefit people and the planet.

## We support nature

Today's timber products combine the qualities of a natural, renewable resource with the high performance of a modern building material which is versatile, efficient, and quick to use. An environmentally friendly alternative to traditional building materials.

Junckers is a proud sponsor of several organisations supporting our forests and the timber industry.

## 2023 targets

Wood is nature's stroke of pure genius. We know there are a lot of reasons why wood is great as a building material - it can absorb carbon from the air and store it, it is easy to recycle, and it can be used for a wide variety of applications. At Junckers, we are committed to the ongoing protection and wellbeing of the environment.

During 2023 we will continue to support sustainable forestry, the timber industry and share our voice to make wood a first-choice material in design and construction.

Proud partner of





9

# INDUSTRY, INNOVATION AND INFRASTRUCTURE



# Upcycled flooring design

A new, strategic collaboration aims to create a high quality upcycled flooring solution based on offcuts from Junckers' floor production with minimal impact on the environment.

Junckers has formed a collaboration with a:gain, a company specialising in the development and production of building materials and interiors made from waste products. Together, the two companies will create flooring with a minimal carbon footprint, primarily using surplus wood and offcuts from Junckers' floor production. With shared values and a strong commitment to providing climate-friendly products, Junckers and a:gain have entered into a long-term partnership to create new flooring solutions for the professional building industry. The collaboration will create a quality upcycled flooring option available at scale, making it easier for architects, designers, and developers to select a flooring option which actively promotes a circular economy within the construction industry.

Responsible use of natural resources is part of Junckers' DNA. Since its inception in 1930, long before we faced global warming, the company focused on sustainable forestry and using every part of every tree.

The fact that nothing is wasted in the production of its flooring is central to Junckers' way of working, and always has been. Surplus wood is converted into energy which supplies the company's factory as well as the local grid. There is a continuous focus on initiatives to minimise the impact on the environment and the collaboration with a:gain is another step on the way to secure best possible utilisation of our precious resource.



*Junckers practices zero waste of resources and works to promote sustainable construction. We share these values with a:gain, making the decision to enter into a collaboration to develop new design solutions based on surplus wood from the production of our solid hardwood floors very easy. Both companies are committed to utilising waste and by-products, which provides good synergy for a collaboration to develop concepts for future projects with a focus on sustainability.*

Niels Clement,  
Nordic Sales Manager, Junckers A/S





JUNCKERS | a:gain



# JUNCKERS | a:gain



*We have high expectations for our future collaboration with Junckers. They bring many years of valuable development and experience to the table, while as experts in creating scalable upcycled products for the professional construction industry, we can contribute new opportunities to the existing industry. If we are to come up with new, innovative solutions that can solve the climate challenges we face, the only way forward is collaboration across companies and skill sets. Our strategic collaboration to create new flooring products with Junckers is a good example of just that*

**READ**



Thomas Nygaard Hamann,  
CEO, a:gain



# Innovation Pilot Day

In 2022 Junckers joined the Innovation Pilot course – a learning programme for engineering students at the Danish University of Technology (DTU).

On the course, the students work in interdisciplinary groups with specific challenges or ideas, defined by participating companies. The aim of the course is to equip future engineers with the challenges they will face when they enter the business world, and at the same time give participating companies new engineering perspectives and solutions to their challenges. Junckers joined the event with two different challenges and had the opportunity to test and develop new ideas in collaboration with four groups of students.

## Challenge 1: Wood offcut material

At Junckers, we use every part of every tree we purchase; nothing goes to waste in the production of our high-quality floors. However, we always strive to do things better and were keen to explore if Junckers could utilise and further process offcuts into new products and segments.



## Challenge 2: Liquid wood concentrate

When drying wood, Junckers accumulates approximately 15,000m<sup>3</sup> of liquid wood concentrate. The concentrate is usually discarded and sometimes small quantities are sold to water cleaning facilities to kickstart bacterial bio waste processes. Initial analysis of the chemical composition of the liquid wood concentrate indicates that the liquid comprises several valuable chemicals sold commercially to the industry. Extraction of chemicals from the liquid could represent a business opportunity for Junckers, but the process needs a more thorough analysis.





*In 2022, Junckers participated in Innovation Pilot for the first time. We wanted a new take on some central issues and were keen to see what ideas the students could come up with.*

*Students always bring a fresh perspective. In addition, Junckers feels an obligation to give students a real-world experience that will help them excel in their careers - hopefully, some of them might become part of our company one day.*

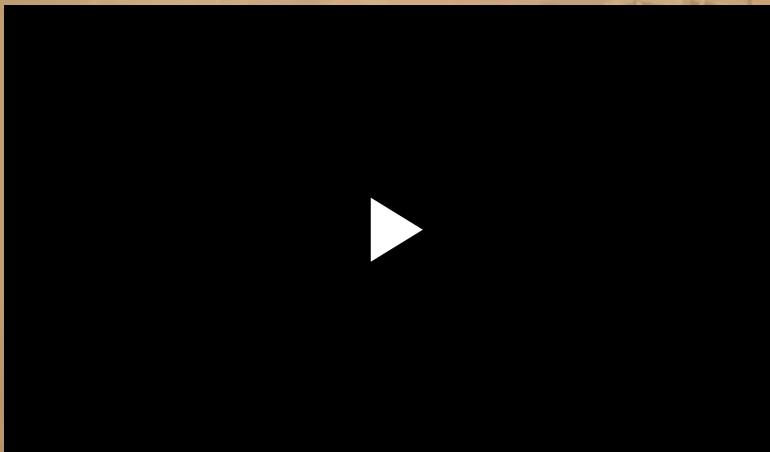
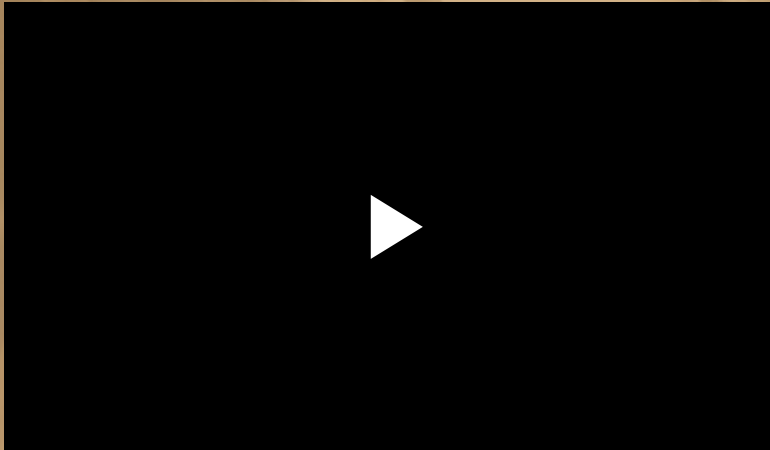
*I am happy Junckers participated and relish the opportunity to work with intelligent, committed, and ambitious young people.*

Peter Pinholt, Technical Manager, Junckers A/S



# Innovation Pilot Day

View the results from the four groups in the following videos







*Collaboration with businesses gives DTU a form of quality assurance in relation to what we teach. It simply makes better students. When Junckers participates with cases, the relationship with future talents is strengthened. As a company, you get an insight into the students' professional profiles and potential recruitment opportunities. At the same time, you as a company get fresh perspectives on some of your current issues. It is win-win and DTU thanks Junckers for participating.*

Mette Pallisgaard Justesen,  
Project Manager, DTU



# The Carbon Calculator

At Junckers we actively promote sustainable building. In 2022 we developed a Carbon Calculator to provide an easy-to-use method for choosing the most environmentally friendly flooring solution for net zero carbon building design.

## Easy to use

Using the Carbon Calculator is straight-forward and requires no previous knowledge of GWP and CO<sub>2</sub>e. By entering the total floor area into the tool, the results show how some flooring products cause an increase in the amount of CO<sub>2</sub> in the atmosphere, whereas others reduce it. Products that reduce CO<sub>2</sub> are referred to as carbon negative. The figures clearly show how influential the choice of flooring is.

## Wood absorbs carbon

The results of the Carbon Calculator show how wood provides the greatest reduction in CO<sub>2</sub> levels. This is because wood acts as a carbon sink, absorbing CO<sub>2</sub> from the atmosphere as trees grow, and continuing to store it when it is made into a product e.g., flooring. As a solid hardwood floor can last for decades, there is a substantial benefit to the environment.

## Action required

The carbon calculator is part of Junckers' drive to promote sustainable design and construction. The UN Intergovernmental Panel on Climate Change and the Paris Agreement aim to cut greenhouse gas emissions by 45% by 2030 and climate scientists advise the annual level of CO<sub>2</sub> emission must be reduced globally as a matter of urgency. To achieve these targets, collective as well as individual consumption habits must change.

## How the results are calculated

Junckers has used publicly available data based on Environmental Product Declarations (EPDs) to calculate the carbon footprint for each floor type. An EPD is an independently verified and registered document that includes data on greenhouse gases generated by extracting, transporting, and processing of raw materials, as well as manufacturing to determine the product's environmental impact. The product's Global Warming Potential (GWP) figures are used to calculate the CO<sub>2</sub>e, which forms the basis of Junckers' Carbon Calculator.



CARBON CALCULATOR



**Try our  
Carbon Calculator  
and find the most  
environmentally  
friendly flooring  
solution**



# 12 RESPONSIBLE CONSUMPTION AND PRODUCT

## Environmental policy

Environmental legislation in Denmark imposes great demands on businesses in terms of environmental and resource consumption in a company's activities. The environmental authorities issue industrial companies like Junckers with a detailed environmental approval notice containing the terms and conditions to be observed. The company is regularly monitored by environmental authority (Køge Municipality for Junckers) inspections, and may be issued with an injunction and ban if conditions are not observed.

When establishing new facilities or buildings, an application seeking permission must be sent to the authorities. Part of the application must contain a description and reference to environmental issues and challenges, including in some cases, issues regarding the best use of available technology, risk assessment if facilities or new buildings are deemed to give rise to a specific risk, e.g. pollution or fire hazard, or a description of the anticipated consumption of resources (incl. energy).

Junckers has identified energy consumption and the resulting emissions of CO<sub>2</sub> to be the most significant risk of negatively affecting the environment and the climate.

# Responsible production and consumption

In the production of our wood flooring, we use large sections of raw wood, which means less waste, lower energy consumption, minimal use of adhesives and full recycling capabilities as the wood is not contaminated. Every part of the tree is used in the production; what is not used for flooring is used as energy source (biomass) to an on-site power station and surplus energy is distributed through the local grid. Through ongoing research and innovation, we seek to minimise chemicals used in our woodcare products and find ways to dispose of surplus in an appropriate and responsible manner. Data pertaining to our manufacturing and material sourcing activities can be found in our EPDs, detailing our environmental impact, resource use, waste categories and output flow.

Junckers has a healthy and positive dialogue with the environmental authorities, and the cooperation is characterised by openness and transparency. The company's certified environmental management system focuses on the environment, resource consumption, responsible waste treatment and more, which today is a natural part of daily operation and planning. Junckers unreservedly supports the Global Compact's principle of a precautionary approach to environmental challenges.

The company's environmental policy, which also includes the working environment and energy use, has been implemented as follows (excerpts):

» Junckers complies with current Danish legislation, as well as other requirements relating to company certifications, environmental approvals and binding obligations. Discrepancies that occur will be corrected.

» Implementation of prevention and improvement in the areas of environmental policy; including prevention of pollution, prevention of occupational injury and illness, and the reduction of energy consumption is carried out by Junckers on an ongoing basis. All work is documented.

» Junckers is part of an open and positive dialogue with relevant stakeholders in the areas of environmental policy, and wishes to influence developments in these areas in a positive direction.



# Factory Environment & Energy consumption

## 2022 HIGHLIGHTS

Junckers' emission of saw dust, fine particles and noise has met the requirements of the authorities for many years. Presently, the authorities have plans to develop an area next to Junckers and in order to facilitate the development, requirements to noise level have been increased significantly. To meet the new requirements, Junckers has started a process to further reduce noise levels.

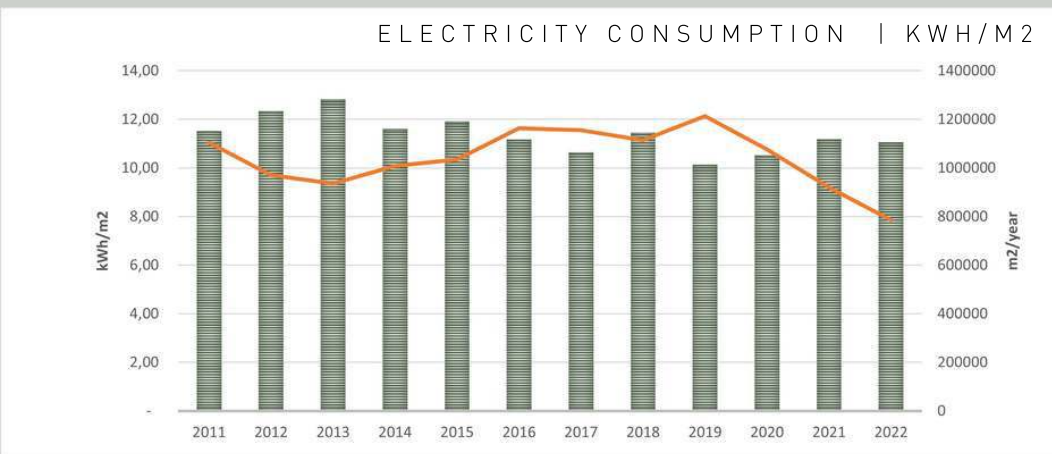
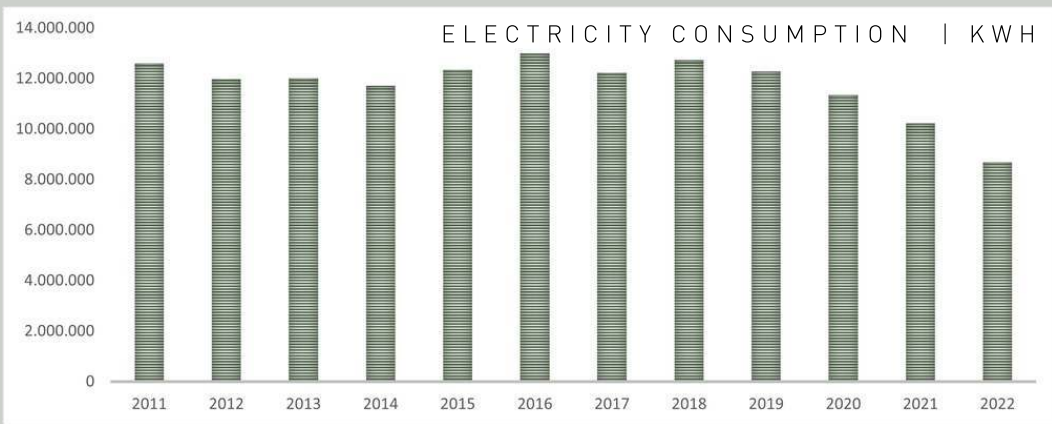
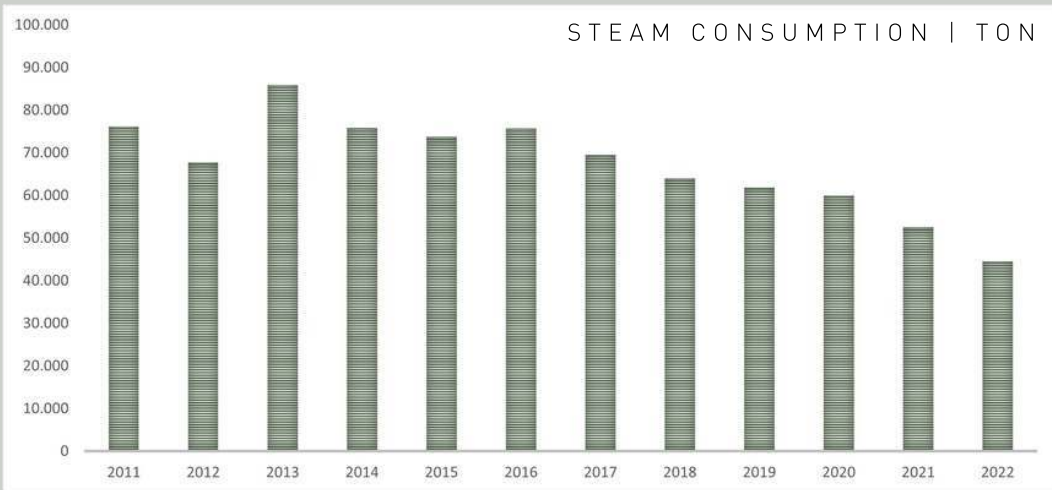
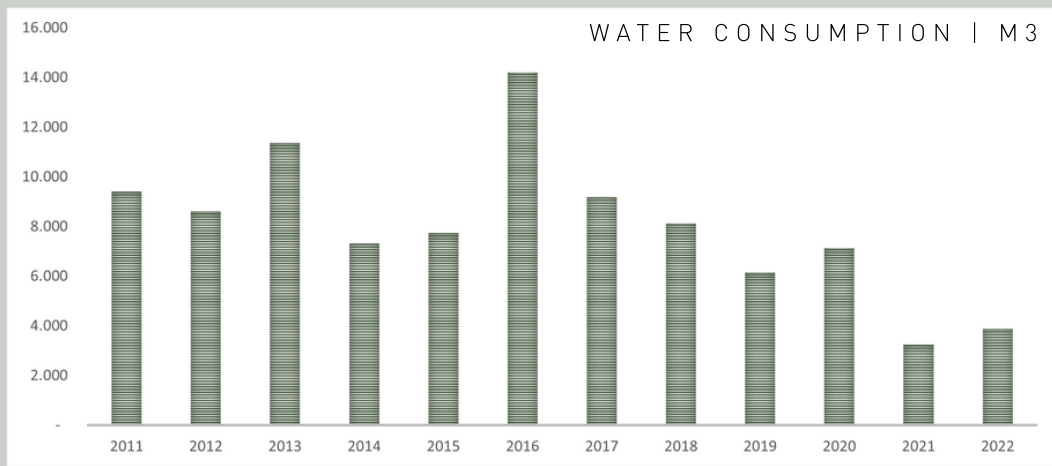
During 2021 the possibility to reduce noise level at the south end of the area was investigated and physical changes have been planned.

The company's energy consumption is still a focus area, due to CO<sub>2</sub> emission and the significant costs of energy. In 2022, the focus has been on bringing down consumption by optimising processes and working habits. The plan to convert to all-electric forklifts as soon as the technology and economy allows is still in place. Furthermore, the use of solar power at the factory in Køge to produce part of the electricity used has been investigated. This process will be continued in 2023, when the plan to establish the first solar power units will be implemented.

The company's energy performance in general is considered to be satisfactory. Work on reducing energy consumption is still highly prioritised. Junckers is ISO 50001 certified, and with increased focus on CO<sub>2</sub> emissions and rising energy costs the focus on energy savings has never been more significant.

The following graphs illustrate our water and energy consumption.

*\*Consumption of energy is based on data of use from energy suppliers. The consumed energy is the total amount used at the site in Køge, covering production, storage and administration facilities.*





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3<sup>rd</sup> PARTY VERIFIED

# EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | ISO 14025 & EN 15804



# Transparency and traceability

Sustainability has always been a focal point at Junckers, and we know from consultants, developers and architects how important it is to provide transparency and traceability in relation to materials. Therefore, in collaboration with Ramboll, we have completed EPDs, which evaluate the environmental impact of our solid hardwood floors. By doing this, we contribute to simplifying the process of selecting flooring for a building which aims to become sustainability certified.

## 2022 HIGHLIGHTS

As part of our strategy to provide knowledge that creates transparency and clear insight into the environmental impact of our solid hardwood floors, we have updated our environmental product declaration (EPD) for two-strip parquet floors, including two new product variants: Twin Herringbone and Single Stave Blocks. We have successfully launched an updated EPD providing the opportunity to declare dismantling, transport, and disposal of the floor (C1-C4) as well as the potential for recycling for the same or other purposes (D) meaning that for two-strip parquet floors and the new variants we are able to declare from cradle to gate + modules C1-C4 and D.

[Download the EPD and read more here](#)

## RESPONSIBLE PRODUCTION & CONSUMPTION

### 2023 targets

Junckers strives to have a minimal carbon footprint in areas where possible. In 2023 we will continue to focus on reducing heat, electricity and diesel consumption.



# Life on land

**Junckers is founded on the principles of sustainable forestry and responsible production. Our business practise has always included treating the natural resources we all rely upon for a healthy life with respect.**

As part of our chain of custody certification through international schemes such as FSC® and PEFC™, for each felled tree, many more are planted to ensure our forests remain healthy and productive. Forests and trees play a central part in everything we do. We continue to raise awareness of the importance of all types of forests, and how healthy forests mean healthy people and a healthy environment, both on a local and international scale. Forest restoration plays a vital role in addressing climate change and the biodiversity crisis. Our wooden floors are made of 100% solid wood. We know that wood, or trees in its original form, stores CO<sub>2</sub>, which helps keep greenhouse gases out of the atmosphere. And even when trees are processed into, for example, wooden floors, the CO<sub>2</sub> remains in the wood and will only to be released if the wood is disposed of. By using wood as a building material, you contribute to a healthier climate.

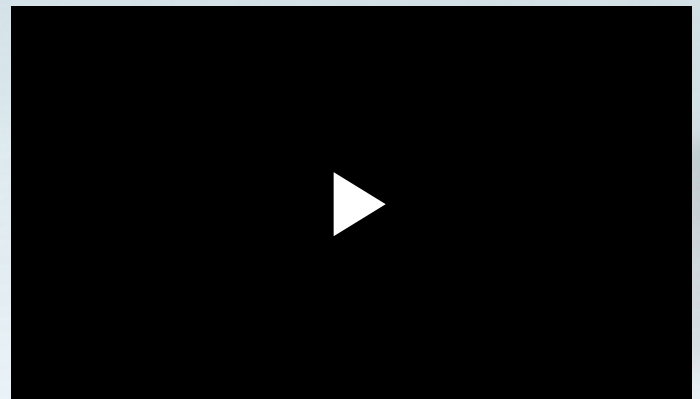
## SUSTAINABLE FORESTRY IS PARAMOUNT

Arguably, wood is the most sustainable building material there is, as long as it comes from properly managed and accredited forests. Junckers only uses raw logs from forests where the balance between planting and felling is preserved. Our supply of logs comes from Denmark, Sweden, Germany and Poland, who all cultivate forests based on sustainable principles. The overwhelming majority of our suppliers are certified under PEFC™ and FSC®.

A sustainably managed forest includes a long-term vision which considers everything a forest provides, including ecological and social benefits. As well as absorb carbon, forests help ecosystems and biodiversity thrive, and improve the quality of drinking water in their vicinity. Social benefits include the pure beauty of the landscape forests provide, and any type of leisure activity within the forests, such as hiking. When trees are harvested in a sustainably managed forest, new trees are planted to start the cycle of growth anew. Sustainable forestry halts deforestation and ensures the long-term supply of wood.

## THINNING IS WINNING

Wood you believe it? To grow a sustainably managed forest it must be thinned. This process is necessary to provide the space the trees need to continue growing to an adequate size and quality. Thinning happens at different times depending on the type of tree grown in the forest. While trees grow, they gradually take up more space and resources, hence, some trees need to be removed for others to be able to grow - thinning. Almost all wood purchased by Junckers comes from trees that are removed during the thinning process. This has been the case since 1930 when the company was founded on a philosophy of resource optimisation by Flemming Juncker, who sought ways to use otherwise wasted wood in production.



# 15 LIFE ON LAND





# Timber sourcing

Junckers produces solid hardwood parquet, two-strip, and plank flooring. The four main wood species used are beech, oak, maple, and ash. The wood is purchased from neighbouring regions, i.e., Denmark, Southern Sweden, Germany, and Poland. A lesser amount is purchased from the USA and Canada, who are able to supply planks in specific dimensions and quality.

Junckers has had a natural interest in maintaining a good relationship with forest management since its inception. Therefore, the factory's raw material (logs and raw planks) can still be delivered in the right quality at a competitive price. The company has been certified according to the internationally used PEFC™ standard since 2006, as well as the FSC® standard since 2010. The certifications document the traceability of the flooring the company sells as certified, so customers can be sure the wood used for Junckers' flooring has been legally harvested from a sustainably managed forest (PEFC™ and FSC®).

As Junckers A/S is based in the EU, it must comply with the EU Timber Regulation, which was implemented on 3 March 2013. The regulation includes a Due Diligence system, which must cover the following areas:

## Information

The operator must have access to information describing the timber and timber products, country of harvest, species, quantity, details of the supplier and information on compliance with national legislation.

## Risk assessment

The operator should assess the risk of illegal timber in their supply chain, based on the information identified above and taking into account criteria set out in the regulation.

## Risk mitigation

When the assessment shows that there is a risk of illegal timber in the supply chain that risk can be mitigated by requiring additional information and verification from the supplier.

The risk assessment used in connection with PEFC™ and FSC® standards has been added to the requirements of the EU Timber Regulation. This means we use only one risk assessment for the purchase of raw wood, which is therefore included in Junckers' Due Diligence system.

The company's purchase policy stipulates all raw wood, semi-finished goods (wood) and goods for resale (wood) purchased, must comply with the requirements of the EU Timber Regulation as a minimum, and therefore be of legal origin. Junckers' procurement strategy also urges its suppliers to certify themselves according to PEFC™ or FSC® standards, to be able to purchase the highest possible amount of raw wood from sustainably managed forests.

## 2022 HIGHLIGHTS

The total share of certified raw wood purchased in 2022 has remained at a stable level of 80%.

### PEFC™/FSC® audits

In 2020 Junckers signed a new five-year contract with the Certification Body WSP Danmark A/S / Soil Association Certification Ltd.

The second external PEFC™ and FSC® surveillance audit based on the new contract was carried out by the certification body in April and May 2022 and included an on-site audit at the US west coast warehouse.

No non-conformances were raised during the audit.

The auditor once again emphasised that we have well-implemented procedures in general and that we continuously improve our routines to reflect changes in the standards.

The annual internal audit at our head office/administration was performed in May 2022 and the internal audit at the US west coast warehouse was carried out in January 2022, having been postponed due to the Covid-19 outbreak.

No non-conformances were recorded during these audits.

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PEFC/09-31-004



# Sale of wood-based waste products

Junckers A/S sells all of its waste from the flooring production to its neighbouring power plant, VEKS.

The biomass energy sector is regulated by an EU directive implemented in July 2021.

As part of the requirements, a minimum of 90% of the total used biomass volume in the power plant must be documented as being of sustainable origin.

In 2022 Junckers sold 90% of its waste products as sustainably certified via PEFC™ and FSC® claims.

## RAW WOOD PURCHASED

	PEFC™	FSC®	TOTAL
2010	24 %	41 %	65 %
2011	37 %	28 %	65 %
2012	52 %	13 %	65 %
2013	52 %	29 %	81 %
2014	53 %	21 %	74 %
2015	44 %	21 %	65 %
2016	40 %	26 %	66 %
2017	44 %	29 %	73 %
2018	43 %	33 %	76 %
2019	43 %	34 %	77 %
2020	41 %	40 %	81 %
2021	45 %	35 %	80 %
2022	46 %	34 %	80 %



## ANNUAL AUDITS

The next internal PEFC™ and FSC® audit at our headquarters in Køge is scheduled for Q2 of 2023, and the annual internal PEFC™ and FSC® audit in the USA is scheduled for Q2 of 2023.

An external PEFC™ and FSC® surveillance audit is planned for August 2023.





# JUNCKERS

Walking on Danish design

JUNCKERS A/S

Tlf. +45 70 80 30 00 | [junckers.com](http://junckers.com) | [info@junckers.com](mailto:info@junckers.com)